



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 8, MONTANA OFFICE  
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HELENA, MONTANA 59626



Ref: 8MO

December 2, 2004

Surface Transportation Board  
Case Control Unit  
Attn: Kenneth Blodgett  
STB Docket No. FD 30186 (Sub-No. 3)  
Washington DC, 20423

Re: CEQ 040493, Draft Supplemental EIS for Tongue  
River Railroad - Western Alignment, STB Finance  
Docket No. 30186 (Sub-No. 3)

Dear Mr. Blodgett:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U. S. Environmental Protection Agency, Region VIII, Montana Office (EPA) has reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) for the Tongue River Railroad Company (TRRC) - Construction and Operation - Western Alignment - Tongue River III in Rosebud and Big Horn Counties, Montana. The EPA reviews EISs in accordance with its responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major federal agency action. EPA's comments include a rating of both the environmental impact of the proposed action and the adequacy of the NEPA document.

The DSEIS states that the purpose of the Tongue River Railroad (TRR) is to get coal to market more efficiently, indicating that the proposed TRR alignment would provide a shorter transportation route to eastern and midwestern coal markets for coal mined from the Decker/Spring Creek coal mines, saving 320 miles on each round trip to the midwest. This mileage reduction is stated to result in sizeable reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc,. It is not clear, however, if the 320 mile savings on each round trip to an eastern destination and associated reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc, fully justifies building a new rail line that will cost \$108.9 million dollars, and that will involve significant additional environmental, social and cultural impacts.



We recommend that a clearer, more comprehensive cost-benefit analysis be provided to assist in providing improved understanding of the economic and operational efficiency benefit of the TRR, along with additional discussion and evaluation of unquantified environmental impacts, values and amenities associated with the construction and operation of the TRR for comparison with the cost-benefit analysis and economic and operational benefits. This is necessary to assist in full evaluation of all the various trade-offs, including environmental, social and cultural resource impacts of the proposed TRR to allow clearer demonstration that a second rail line is needed to serve this coal mining area, and that TRR benefits justify the adverse impacts. The CEQ regulations for implementing NEPA (40 CFR 1502.23) indicate that when a cost-benefit analysis is prepared, it should include discussion of the relationship between the cost-benefit analysis and any analyses of unquantified environmental impacts, values and amenities. Without this information, the public, and decision-makers do not know if the environmental impacts are acceptable, and/or how they can be compared to cost-benefit and economic and operational factors. We believe the No Action Alternative would have a lower magnitude of environmental impact than any of the action alternatives, and would be the environmentally preferable alternative.

With regard to the proposed Western Alignment, the DSEIS indicates that the Western Alignment like the Four Mile Creek Alternative will avoid the sensitive Tongue River Canyon, and may be environmentally and operationally preferable to the Four Mile Creek Alternative, and identifies Western Alignment advantages over the Four Mile Creek Alternative, including reduced wetland impacts, fewer public road crossings, fewer home displacements, reduced right-of-way acquisition, lower operational emissions of air pollutants, fewer sensitive receptors to noise and vibration, reduced grade and climb for loaded trains, lower fuel use and operational costs, and fewer curves and increased operational safety (fewer derailments).

The Western Alignment, however, also involves more earthwork during construction that may increase sediment loads to the Tongue River, portions of which are listed as water quality impaired by the State of Montana under Section 303(d) of the Clean Water Act. We are not opposed to selection of the Western Alignment, but we believe it is important that rail line construction and operation avoid further degradation of 303(d) listed segments of the Tongue River, as well as 303(d) listed Tongue River Reservoir, Hanging Woman Creek, Otter Creek and Pumpkin Creek. TRR construction and operation activities should be consistent with Total Maximum Daily Loads (TMDLs) and Water Quality Restoration Plans being prepared for the Tongue River TMDL Planning Area. If proposed mitigation measures do not adequately control erosion and reduce sediment and other pollutant production and transport to 303(d) listed waters, we believe watershed restoration measures should be proposed to control existing pollutant sources and loading to the river to offset or compensate for TRR caused pollutant loads, and thus, avoid further degradation to 303(d) listed surface waters.

We recommend that the STB and TRRC contact the TMDL Program Managers for the Montana Department of Environmental Quality (i.e., George Mathieus at 406-444-7423) and EPA (Ron Steg at 406-457-5024) to ensure MDEQ and EPA concurrence on, and coordination of proposed activities with the MDEQ/EPA Tongue River Planning Area TMDL and Water Quality Restoration Plan development.

Also, potential adverse impacts to the threatened bald eagle from the Western Alignment need to be more fully and accurately evaluated and compared to the Four Mile Creek Alternative to more clearly demonstrate that the Western Alignment is the least environmentally damaging practicable alternative in accordance with Clean Water Act Section 404 requirements. The TRRC should be required to work with the U.S. Fish & Wildlife Service (USFWS) to gather more up-to-date information on potential impacts to the bald eagle. There may be a need for the TRRC and STB to enter into formal consultation with the USFWS if adverse effects to the bald eagle are likely to occur. We understand that the USFWS may consider the lower portion of the Four Mile Creek alignment and the upper section of the Western Alignment (where S566 crosses the Tongue River) to have less impacts to wildlife and federally listed species than either the Four Mile Creek Alternative or the Western Alignment. Would such an alternative be considered "practicable" from a 404(b)(1) standpoint (i.e., the term "practicable" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes in accordance with 40 CFR 230.3(q))?

The DSEIS states that estimates of wetlands in the analysis corridor are qualitative estimates based on aerial surveys, and that wetlands have not been confirmed through quantitative methods due to inability to access the corridor. It is difficult to delineate wetlands and evaluate wetland functions and values from aerial surveys alone. On-the-ground wetland delineation and functional assessment is needed. As you know, wetland mitigation will be required to assure that the project will compensate for unavoidable wetland impacts in accordance with applicable requirements under Section 404 of the Clean Water Act. Wetland impacts should be avoided and minimized, to the maximum extent practicable, and then unavoidable wetland impacts should be compensated for through wetland restoration, creation, or enhancement. The goal of wetland mitigation should be to replace the functions and values of lost wetlands in areas adjacent to or as close as possible to the area of wetlands loss.

A Conceptual Habitat Mitigation and Monitoring Plan is included in the DSEIS. The conceptual wetland mitigation plan and the list of potential mitigation sites in the DSEIS does not provide adequate information on how the applicant will ensure that the mitigation sites will meet the wetland criteria, and provide adequate replacement of lost wetland functions and values. It is stated that mitigation alternatives will be explored during the 404 permitting process. We recommend that a detailed Wetland Mitigation Plan be prepared during the permitting process to assure that adequate replacement of lost wetland functions and values occurs. This Plan should be approved by the appropriate agencies before implementation of the proposed project.

We also recommend consideration of a single 404 permit to cover the dredge and fill permitting for the project due to the numerous aquatic impacts. We feel this is preferred over issuance of a combination of numerous individual and nationwide permits, since it may allow for improved cumulative effects evaluation as well as to reduce paperwork and permit processing time, and assure that all necessary permits for dredge and fill activities can be obtained for the full project. Although we realize if the project is to be constructed in several segments over varying time periods it may be appropriate to permit each construction segment individually.

We also have concerns regarding potential indirect and cumulative effects of the TRR in regard to environmental impacts of additional future coal mine development that may be facilitated by the proposed rail line. The DSEIS states that the TRR is essential to the development of Ashland area mines, which have no alternative means of economic transport without the railroad. The largest remaining undeveloped reserves of low sulfur, high BTU, sub-bituminous coal in the U.S. are stated to be located near Ashland. It is further stated that the State of Montana recently acquired an estimated 530 million tons of coal reserves from the federal government in the Otter Creek tracts near Ashland. A likely indirect effect of the TRR would be facilitation or inducement of future coal mine development in these areas. The indirect and cumulative environmental impacts of potential reasonably foreseeable future coal mining that may be induced or facilitated by the TRR should be completely analyzed and presented in accordance with 40 CFR 1508.7 and 1508.8.

We note that there may be indirect and cumulative effects on Tribal Trust resources from coal development on or near Northern Cheyenne Reservation boundaries that may be induced or facilitated by the TRR. Clear disclosure of direct, indirect and cumulative impacts of potential TRR construction and operation on Tribal Trust resources is needed.

In addition, it is stated that Wyoming coal is presently transported to midwestern markets via the circuitous Sheridan to Miles City BNSF railroad route, and some of this Wyoming coal is likely to be transported over the more direct TRR route. Concerns have been evidenced that a more efficient transportation route for Wyoming coal may lead to additional mining of Wyoming coal, which may result in reductions of coal production in Montana. The potential economic and social impacts of the TRR on coal production in Montana should be more clearly analyzed and presented. Is it likely that the more efficient TRR coal transport route may result in additional mining of Wyoming coal in this area, resulting in additional associated environmental, social and economic impacts? If so, these additional associated environmental, social and economic impacts need to be more fully and clearly analyzed and presented.

The DSEIS states that the proposed Western Alignment could affect paleontological and cultural resources, and that impacts would be mitigated by provisions in the Programmatic Agreement (Appendix G). We are pleased that efforts have been made to consult with Native Americans (Appendix M), and that a draft Programmatic Agreement including consultation with the Northern Cheyenne and Crow Tribes has been drafted, however, it is not clear if this Programmatic Agreement has been finalized with the above noted Tribes signatory to this Agreement. If the Tribes have not signed this Programmatic Agreement how will National Historic Preservation Act cultural resource consultation requirements be met?

We are also concerned that TRR construction and operation may result in adverse effects to the Montana Dept. of Fish, Wildlife & Parks Fish (MDFWP) fish hatchery at Miles City (i.e., may reduce success of hatching, rearing and production of fish). This hatchery provides stocking sources for many species of warm water fish, including the endangered pallid sturgeon. The DSEIS identifies potential concerns regarding vibrational effects on fish production, as well as concerns regarding coal dust and herbicide use for weeds along the railroad corridor near the hatchery. We are particularly concerned about effects to fisheries programs that promote

recovery of the endangered pallid sturgeon. The analysis and disclosure of potential noise and vibrational effects and coal dust upon fish hatchery operations and success in the DSEIS does not alleviate all the concerns. Adverse impacts to success of hatching, rearing and production of hatchery fish for warm water fish stocking programs need to be more fully evaluated and considered.

We are pleased that Mitigation Measure 86 requires TRRC to consult with the MDFWP, however, we are concerned that such consultation may not result in effective avoidance of adverse effects to fish hatchery operations and warm water fish stocking programs. Mitigation Measure 87 requires TRRC to adhere to "reasonable" mitigation conditions imposed by MDFWP, but it is not clear who determines if mitigation conditions are "reasonable." We believe Mitigation Measure 87 should require TRRC to adhere to mitigation conditions imposed by MDFWP that effectively avoid adverse effects upon hatchery operations.

Also, it is not clear to us why alternative railroad alignments that move the railroad away from the hatchery to avoid potential railroad construction and operation effects upon the fish hatchery were not analyzed and presented. We believe alternative railroad alignments that move the railroad away from the hatchery are likely to be the most effective means of avoiding adverse effects to fish hatchery operations and fish production. Accordingly, we believe alternative railroad alignments that move the railroad away from the hatchery to avoid or reduce potential railroad construction and operation effects upon the fish hatchery should be fully evaluated and presented.

It would also be helpful if a cost-benefit analysis for alternative railroad alignments at Miles City were provided to allow improved understanding of the economic advantages of the proposed alignment near the fish hatchery for comparison with other potential Miles City alignment alternatives, along with improved evaluation of potential impacts to the fish hatchery, and any other unquantified environmental impacts, values and amenities associated with Miles City alignment alternatives. This is needed to fully evaluate all the various options and trade-offs. It presently appears that economic advantages to the TRRC from their preferred Miles City alignment is taking precedent over alternatives that may avoid fish hatchery impacts.

In regard to potential air pollutant emissions associated with the TRR construction and operation, we believe there is a need for additional information to support statements that emissions of air pollutants from the proposed Western Alignment would be lower than emissions from the previously-approved Four Mile Creek Alternative. Also, the FEIS should clarify that the Prevention of Significant Deterioration (PSD) thresholds (which should be expressed tons per year and not tons/mi-yr) are used for comparison purposes and do not have regulatory significance in this application.

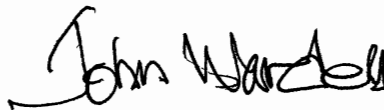
The EPA's more detailed questions, concerns, and/or comments regarding the analysis, documentation, or potential environmental impacts of the SDEIS for Tongue River Railroad - Western Alignment, STB Finance Docket No. 30186 (Sub-No. 3) are included in the enclosure with this letter. The EPA's comments include a rating of both the environmental impact of the proposed action and the adequacy of the NEPA document (see explanation of EPA EIS rating

criteria enclosed). Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in the SDEIS has been rated as Category EC-2 (Environmental Concerns-Insufficient information).

EPA's concerns regard demonstration of project purpose and need in light of project costs and benefits and potential environmental, social and cultural resource impacts. EPA recommended improved cost-benefit analysis and additional discussion and evaluation of unquantified environmental impacts, values and amenities associated with the construction and operation of the TRR for comparison with the cost-benefit analysis and economic and operational benefits. This is needed to more clearly demonstrate that a second rail line is needed to serve this coal mining area, and that rail line benefits justify the adverse impacts. EPA also expressed concerns regarding impacts to water quality, wetlands, the threatened bald eagle, the Miles City fish hatchery, Tribal Trust resources, and indirect and cumulative environmental impacts, and believes additional information, data, analysis and discussion should be included in the final EIS.

We appreciate the opportunity to review and comment on this DSEIS. If you have any questions regarding our input, please contact Mr. Steve Potts of my staff in Helena at (406) 457-5022 or in Missoula at (406) 329-3313. Thank you.

Sincerely,



John F. Wardell  
Director  
Montana Office

cc: Larry Svoboda/Julia Johnson, EPA, Denver, 8EPR-EP  
Mark Wilson, USFWS, Helena  
Lou Hanebury, USFWS, Billings  
Rodney Schwartz, COE, Omaha  
Allan Steinle, COE, Helena  
David Millegan, Northern Cheyenne Tribe, Lame Deer  
Gary Bertellotti, MDFWP, Helena  
Jeff Ryan, MDEQ-WQD, Helena

# U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

## Definitions and Follow-Up Action\*

### Environmental Impact of the Action

**LO - - Lack of Objections:** The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**EC - - Environmental Concerns:** The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

**EO - - Environmental Objections:** The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**EU - - Environmentally Unsatisfactory:** The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

### Adequacy of the Impact Statement

**Category 1 - - Adequate:** EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**Category 2 - - Insufficient Information:** The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

**Category 3 - - Inadequate:** EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.





# **EPA Review of Draft Supplemental EIS Tongue River Railroad - Construction and Operation - Western Alignment, Tongue River III - Rosebud and Big Horn Counties, Montana**

## **Brief Project Overview:**

The Tongue River Railroad (TRR) is composed of two segments; an initial 89 mile segment from Miles City to near Ashland, Montana; and a 41 mile extension from Ashland to Decker, Montana, proposed by the Tongue River Railroad Company, Inc. (TRRC). The project located in Custer, Big Horn, Powder River, and Rosebud Counties, Montana, is the subject of three separate applications to the U.S. DOT Surface Transportation Board (STB), known as Tongue River I, Tongue River II, and Tongue River III. The overall purpose of Tongue River I, Tongue River II, and Tongue River III is to transport coal from mines in the Powder River Basin and Tongue River Valley to markets in the Midwest and northeastern states.

TRRC's original application filed in 1983, sought approval from the Interstate Commerce Commission (ICC), the STB's predecessor agency, to construct and operate 89 miles of rail line between Miles City, Montana and two termini located near Ashland, Montana. In a decision served May 9, 1986, the ICC approved Tongue River I. TRRC filed another application in 1991 for Tongue River II, seeking approval to extend the line from Ashland to Decker, Montana. The STB approved Tongue River II, authorizing construction of 41 miles of rail line via the Four Mile Creek Alternative, in a decision served in November 1996. The STB selected the Four Mile Creek Alternative over the TRRC's preferred alternative, since the Four Mile Creek Alternative avoided disturbances to the environmentally sensitive section of the Tongue River below the Tongue River Dam, and eliminated the need to construct a tunnel and five bridges in the Tongue River Canyon.

The TRRC did not like the STB's selected Four Mile Creek Alternative due to safety, cost and operational considerations. The TRRC filed an application with the STB on April 27, 1998 seeking authority to construct and operate a 17.3 mile line of railroad known as the "Western Alignment" (Tongue River III) as an alternative routing for the Four Mile Creek Alternative which is in the southern most portion of the Ashland to Decker, Montana rail route. A Notice of Intent to prepare a Supplemental EIS to evaluate the Western Alignment was published on July 10, 1998, however, work on this Supplemental EIS was suspended on March 10, 2000, and was then initiated once again on March 26, 2003.

The Western Alignment would generally follow a route between TRRC's preferred Tongue River Canyon alignment and the Four Mile Creek Alternative, and would be located on uplands out of the Tongue River Canyon. The Western Alignment would begin at a point approximately 9 miles downstream of the confluence of Four Mile Creek and the Tongue River. It would then cross the Tongue River approximately 3,000 feet downstream of the existing county road river crossing. After crossing the river, the Western Alignment would parallel the existing Tongue River road for 4 miles, then separate from the county road and climb away from

the valley floor. At Four Mile Creek the Western Alignment would cross the County Road with a 100 foot long bridge and run approximately 320 feet west of Hosford Diamond Cross Ranch headquarters, then climb away from the Tongue River Valley and proceed to connect to the existing Spring Creek rail spur. The railroad right-of-way width would average 200 feet, ranging from 100 to 300 feet depending upon cut and fill requirements. There would also be seven passing sidings each approximately 8500 feet long, and set-out tracks for storage of rail cars and equipment.

It is important to note that the TRRC has not constructed any portion of the Tongue River Railroad including the portion from Miles City to Ashland that was approved by the ICC in 1986. The U.S. Army Corps of Engineers, which has Clean Water Act Section 404 permit authority for the Tongue River Railroad, has indicated that it will consider the railroad in its entirety, including the 89 mile original segment from Miles City to Ashland, since all previously issued 404 permits have expired, and the project, although presented piecemeal, is essentially construction of one continuous track by the TRRC. The Corps also indicated that environmental conditions have changed since the original 1985 environmental compliance, noting that wetland delineation was never done for the 89 mile Miles City to Ashland segment. This DSEIS includes proposed refinements to the alignments previously approved in Tongue River I and II, and mitigation measures to address potential impacts of the entire rail line in Tongue River I, II, and III.

#### **Comments:**

1. Thank you for including Table 1-1 (page xxi) comparing key environmental issues and Table 2-1 (page 2-3) comparing construction and operation features for the Western Alignment and Four Mile Creek Alternative, and providing clear maps showing the alternative railroad alignments (Figures 1-1 through 2-1), and the chronologies of events (pages 1-4, 1-8, 1-12) for Tongue River I, II, and III. These tables, maps and chronologies facilitate improved project understanding and evaluation of alternatives and help define issues, and assist in providing a clearer basis of choice among options for the decisionmaker and the public in accordance with the goals of NEPA.
2. It is stated in many places in the DSEIS that the TRR consists of the 89 mile segment from Ashland to Miles City and the 41 mile segment from Decker to Ashland (i.e., 130 mile total railroad length). The FEIS should explain or clarify why it is stated that the TRRC is proposing to construct 116 miles of rail line from Miles City to near Decker, Montana (Appendix D, Conceptual Habitat Monitoring and Mitigation Plan), rather than the 130 miles of rail line that would result from the 89 and 41 mile railroad segments.

#### **Purpose and Need and Alternatives**

3. The Tongue River Railroad (TRR) does not appear to be needed to get coal to market, since coal from the Decker/Spring Creek coal mines is presently finding its way to markets, via the existing BNSF rail line from the Spring Creek spur south into Sheridan,

Wyoming and then back north through Montana (via Hardin and Huntley) to Miles City, Montana (Figure 1-8, page 1-24). The DSEIS states that the purpose of the TRR is to get coal to market more efficiently, indicating that the proposed TRR alignment would provide a shorter, more efficient transportation route to eastern and midwestern coal markets for coal mined from the Decker/Spring Creek coal mines, saving 320 miles on each round trip to the midwest (page 2-4). It is stated that this mileage reduction will result in sizeable reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc.,

It is not clear, however, if the 320 mile savings on each round trip to an eastern destination and the associated reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc, fully justifies building a new rail line that will cost \$108.9 million dollars, and that will involve additional environmental, social and cultural impacts. We believe a clearer, more comprehensive cost-benefit analysis should be provided to assist in better understanding the economic and operational efficiency benefit from the TRR, and there should also be additional discussion and evaluation of unquantified environmental impacts, values and amenities associated with the construction and operation of the TRR for comparison with the cost-benefit analysis and economic and operational benefits. This is necessary to assist in full evaluation of all the various trade-offs, including environmental, social and cultural resource impacts of the proposed TRR, and to more clearly demonstrate that a second rail line is needed to serve this coal mining area, and that TRR benefits justify the adverse impacts. The CEQ regulations for implementing NEPA (40 CFR 1502.23) indicate that when a cost-benefit analysis is prepared, it should include discussion of the relationship between the cost-benefit analysis and any analyses of unquantified environmental impacts, values and amenities.

Improved quantification or at least discussion of environmental, social and cultural resource impacts is needed for comparison with economic and operational factors. The DSEIS should compare environmental impacts from vegetation removal, erosion and increased sedimentation, stream bank modification, degraded water quality, and potential loss of wildlife habitat of fragmentation of habitat, loss of recreational opportunities and impacts to cultural resources, with the economic and operational benefits. Without this information, the public, and decision-makers do not know if the environmental impacts are acceptable, and/or how they can be compared to cost-benefit and economic and operational factors. The project documents have identified impacts likely to occur as a result of the proposed project, but have not provided estimation of the magnitude of these impacts to the critical resources for comparison to cost-benefit and economic and operational factors.

Some questions that it would be helpful to have additional discussion and explanation regarding are as follows:

How are unquantified environmental impacts, values and amenities being evaluated and weighed in the decision-making regarding construction of a second rail line to serve the Decker/Spring Creek area?

Have the environmental, social and cultural resource impacts of the TRR construction/operation alternatives been adequately compared and evaluated against the no-action alternative, so the public and decision-maker can fully understand the differences in environmental impacts between TRR construction/operation and no action?

Is there an expectation that the existing BNSF rail line that presently serves this coal mining area will be downgraded or abandoned after the TRR is constructed? Are costs of downgrading and/or abandonment of the existing rail line being considered?

How much of a grade and load and fuel consumption advantage in coal transport does the TRR offer in comparison to the existing BNSF rail line?

Do the economic efficiencies and sizeable reductions in fuel consumption, locomotive emissions, train-turn-around times, maintenance and operation expenses, etc, fully justify the additional costs and environmental, social and cultural resource impacts associated with building and operating a second rail line to serve the Decker/Spring Creek coal mining area?

4. Also, it is stated (page 2-7) that some of the coal to be carried on the proposed Tongue River Railroad would serve markets in Washington. Would coal destined for Washington (i.e., a western rather than eastern destination) be more efficiently transported over the existing BNSF line rather than the proposed Tongue River Railroad?
5. We are pleased that the Tongue River II realignment south of Birney would shift the railroad farther away from the Tongue River, and farther away from structures and homes in the Birney area, and that Tongue River I realignment would also move the rail line farther from the valley floor (page 5-5). Rail line alignments that avoid impacts to the Tongue River valley and riparian areas should be preferred.

#### Western Alignment

6. The DSEIS Table 1-1 and Table 2-1 shows that the Western Alignment has several advantages over the Four Mile Creek Alternative. The Western Alignment is:
  - shorter (17.3 miles vs. 29.4 miles);
  - crosses fewer public roads (4 vs. 7 road crossings);
  - displaces fewer homes (0 vs. 2);
  - does not require reconstruction of State Highway 312 (Appendix D, page 54);

- affects fewer landowners (13 vs. 15);
- requires reduced right-of-way acquisition (672 acres vs. 765 acres);
- disturbs less wetlands (1.69 acres vs. 6.09 acres);
- results in lower operational emissions of air pollutants CO, NO<sub>x</sub>, PM<sub>10</sub>, SO<sub>2</sub>, and VOC (16.85 vs. 25.84 tons/mile/year);
- affects fewer sensitive receptors to noise and vibration (1 vs. 4 during construction; and 0 vs. 5 during operation);
- reduced grade and climb for loaded trains (0.4% vs. 1.53% maximum climbing grade; and 0.93% vs. 2.31 maximum descending grade; and 64 feet vs. 694 feet of climb; helper locomotives would not be required for the Western Alignment which has an initial 2 mile climb of 0.5% and then a gradual descending grade to Miles City, App. D, page 40);
- fewer curves and increased operational safety and fewer derailments (0.32 vs. 0.55 per year);
- reduced fuel use per train (1,826 gallons vs. 2,798 gallons);
- reduced operational costs (that greatly offset increased construction costs of the Western Alignment);

These Tables also identify some disadvantages of the Western Alignment such as:

- crosses more non-perennial streams (42 vs. 40);
- involves greater amounts of earth moving (18,300-28,700 vs. 14,600-23,800 million yd<sup>3</sup>);
- increases in sediment load to the Tongue River (6,770-10,600 vs. 3,650-6,000 tons/year);
- affects more cultural resource sites in the ROW (9 vs. 6);
- involves greater construction costs (\$108.9 million vs. \$95.17 million);
- involves greater impacts to irrigated farmland (11.5 acres vs. 7 acres, page 4-63);
- may involve greater potential impacts to threatened bald eagles;

Based on this comparison of advantages and disadvantages, we agree with the STB that the Western Alignment, which avoids the sensitive Tongue River Canyon, may be environmentally and operationally preferable to the Four Mile Creek Alternative, although we have concerns about potential impacts to the bald eagle (see comment # 28), and about increased sediment loads to the Tongue River, that may result from the increased earthwork associated with construction of the Western Alignment.

We believe it is important that rail line construction and operation avoid further degradation of 303(d) listed segments of the Tongue River. If this cannot not be accomplished with project planning and design and mitigation measures to control erosion and sediment production and transport, we believe watershed restoration measures should be proposed for control of other existing sources of sediment and other pollutant loading to the river to offset or compensate for TRR caused pollutant loads (see discussion of impacts to 303(d) listed streams and consistency with Total Maximum Daily Loads (TMDLs) and Water Quality Restoration Plans below in comment # 15).

7. We also want to indicate that with regard to the TRR, we believe the No Action Alternative would have a lower magnitude of environmental impact than any of the action alternatives, and would be the environmentally preferable alternative.

### Environmental Effects and Mitigation

#### Multi-agency Task Force

8. We are pleased that a Multi-agency Railroad Task Force will be developed to oversee implementation and monitoring of terrestrial and aquatic mitigation measures (Mitigation Measure 14, page 4-69). Unfortunately, other program commitments and lack of resources will likely limit the ability of EPA to be involved to any great degree with this Task Force, but we would like to be included on the mailing list for Task Force written reports or findings. We also encourage the Task Force to notify EPA when and if issues within EPA's jurisdiction and authority may need to be addressed.

#### Wetlands, Riparian Areas, and 404 Permits

9. As you know railroad construction and operation are likely to involve deposition of dredged or fill material in waters of the United States, including wetlands, so that a Clean Water Act, 33 U.S.C. 1344, Section 404 permit for discharges of fill material into wetlands and other waters of the United States is likely to be needed. It is important for the STB and TRRC to ensure consultation with the Corps of Engineers to assure that 404 permit requirements for TRR construction activities in or near streams or wetlands are met, (e.g., contact Mr. Allan Steinle of Corps of Engineers Montana Office in Helena at 406-441-1375). We are pleased that the Corps of Engineers is a Cooperating Agency for the project (page 1-8).

EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority. Wetlands and riparian areas increase landscape and species diversity, and are critical to the protection of designated water uses. Possible effects on wetlands and riparian areas include impacts on water quality protection and improvement, habitat for aquatic and terrestrial life, channel and bank stability, flood storage, ground water recharge and discharge, sources of primary production, and aesthetics. Executive Order 11990 requires that all Federal Agencies protect wetlands. In addition national wetlands policy has established an interim goal of **No Overall Net Loss of the Nation's remaining wetlands**, and a long-term goal of increasing quantity and quality of the Nation's wetlands resource base.

The DSEIS states that estimates of wetlands in the analysis corridor are qualitative estimates based on aerial surveys, and that wetlands have not been confirmed through quantitative methods due to inability to access the corridor (page 4-7). It is not clear to us how the wetland impacts of the Western Alignment (1.69 acres) and Four Mile Creek

Alternative (6.09 acres) can be shown to the nearest hundredth of an acre without on-site wetland delineation (Table 4-19, page 4-78). We believe it is important to conduct on-site wetland delineations and functional assessments of wetland impacts of the alternatives in order to make an appropriate comparative evaluation of wetland impacts among the alternatives. It is difficult to delineate wetlands and evaluate wetland functions and values from aerial surveys alone. On-the-ground wetland delineation and functional assessment is needed.

Wetlands in a project area should be identified and delineated consistent with the Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, January 1987, Final Report and its recent guidance on implementation. Delineation should be followed by a functional assessment to determine the extent and importance of existing wetland and aquatic resources. Identification and protection of the unique, small but exceedingly important (ecologically) sites that function as key elements of the ecosystem (i.e., springs, seeps, moss dominated wetlands, etc.) also may be important.

As you know, wetland mitigation will be required to assure that the project will compensate for unavoidable wetland impacts in accordance with applicable requirements under Section 404 of the Clean Water Act. Wetland impacts should be avoided and minimized, to the maximum extent practicable, and then unavoidable wetland impacts should be compensated for through wetland restoration, creation, or enhancement. Measures for avoidance and mitigation for wetlands and riparian areas need to be thoroughly discussed. The goal of wetland mitigation should be to replace the functions and values of lost wetlands in areas adjacent to or as close as possible to the area of wetlands loss.

Several options for wetland functional assessment such as the Hydrogeomorphic (HGM) Approach are available for use in determining wetland and associated aquatic resources functions and their values. EPA/Corps policy has also accepted acre-for-acre replacement of wetlands as a surrogate for replacement of functions and values when there is a lack of definitive information on functions and values, although adjustments may be necessary to reflect the expected degree of success of mitigation, and provide an adequate margin of safety to reflect anticipated success (i.e., greater than acre-for-acre replacement is suggested when impacted wetlands have high function & value and likelihood of replacement of functions is low). Construction/enhancement of wetlands to compensate for impacted wetlands should occur in advance or concurrent with activities causing wetlands impacts to reduce temporal losses of wetland functions.

The 404(b)(1) guidelines (40 CFR Part 230), which provide the substantive environmental criteria for evaluation of proposed discharges of dredged or fill material to waters of the U.S. under the Clean Water Act 404 permit program, indicate that the "least environmentally damaging practicable alternative" to satisfy the project purpose should be permitted. We appreciate the inclusion of a draft 404(b)(1) analysis in Appendix D.



Table 10 in Appendix D (404(b)(1) analysis, page 49) and Table 3 (Conceptual Habitat Plan, page 74) appear to show the TRR modified route via the Western Alignment includes 297 waters of the U.S. within the rail line right-of-way, but will only impact 38.05 of these acres along the entire 116 to 130 mile corridor. Is this correct? Do these potential impacts to waters of the U.S. include impacts from all activities, including construction staging areas and camps, roads, equipment storage areas, fill and borrow areas, etc.?

If the impacts to waters of the U.S. from the proposed project are completely and accurately depicted in the draft 404(b)(1) analysis, it does appear to show that the modified TRR route via the Western Alignment is less damaging to waters of the U.S., however, potential adverse impacts to the threatened bald eagle need to be more fully and accurately evaluated and compared to such impacts for the Four Mile Creek Alternative (see comment #28), to more clearly demonstrate that the Western Alignment is the least environmentally damaging practicable alternative. We understand that the USFWS may consider the lower portion of the Four Mile Creek alignment and the upper section of the Western Alignment (where S566 crosses the Tongue River) to have less impacts to wildlife and federally listed species than either the Four Mile Creek Alternative or the Western Alignment. Would such an alternative be considered “practicable” from an economic and operational standpoint (i.e., the term “practicable” means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes in accordance with 40 CFR 230.3(q))?

10. A Conceptual Habitat Mitigation and Monitoring Plan is included in Appendix D. The conceptual wetland mitigation plan and the list of potential mitigation sites in Appendix D does not provide adequate information on how the applicant will ensure that the mitigation sites will meet the wetland criteria of the 1987 Corps of Engineers Wetland Delineation Manual (i.e., hydric soils, hydrophytic vegetation and wetland hydrology). It is stated that mitigation alternatives will be explored during the 404 permitting process. Mitigation Measure 22 (page 4-78) that requires TRRC to adhere to “reasonable” mitigation measures identified in the Conceptual Habitat Mitigation Plan should be amended to require TRRC to develop a detailed wetlands mitigation plan that replaces lost wetland functions and values as determined by the applicable regulatory agencies.

We recommend that a detailed Wetland Mitigation Plan be prepared during the permitting process assure that adequate replacement of lost wetland functions and values occurs. This Plan should be approved by the appropriate agencies before implementation of the proposed project. We recommend that the Plan contain a statement of goals, a monitoring plan, long-term management/protection objectives and a commitment to conduct additional work, if required, to meet the goals of the Plan.

As mitigation site selection progresses, Section 404 permit requirements will require TRRC to provide specific information on means to maintain wetland characteristics (e.g.,



keep water on the site for adequate periods of time). These means may include plugging or breaking drain tiles, installing liners or check dams, or diverting water to the site from adjacent areas. Wetlands should have self-sustaining hydrology as much as possible rather than relying on artificial systems such as irrigation or pumping.

When selecting potential mitigation sites, we strongly urge TRRC to select former wetland sites that were legally altered (i.e., prior converted cropland) and can be restored to wetland. Restoring former wetlands has a much greater chance of success than trying to create wetlands where none existed previously, and only as a last resort will we consider attempts at wetland creation as acceptable mitigation. TRRC also should consider other factors in the selection process that may influence or enhance success and the functional value of the wetland upon completion of the mitigation effort. These factors include, but are not limited to, adjacency to streams, waterbodies, or other wetlands, basin morphology, landscape position, location in the watershed, and opportunities to combine the mitigation with enhancement, restoration, or preservation efforts by state or local agencies or private organizations. Hydrologic sources for mitigation wetlands should be natural instead of artificial sources (i.e. avoid use of poor quality Coal Bed Methane production water).

We recommend that the development of mitigation wetlands be planned so that site location, preparation and hydrologic functions and values and chemical, biological and physical characteristics of the impacted wetlands are replaced through the design of the mitigation sites and wetland types that are similar to the wetland types that are being impacted. The applicant will need to seed or plant wetland vegetation, monitor the mitigation site for planting success, and to have replanting plans in case of planting failure. Adequate details that include site preparation, plant species selection, planting densities, plans for control of alien or invasive species, or standards for measuring planting success have not been presented. As site selection progresses, the applicant must provide specific information on specific planting plans to achieve specific wetland vegetation types, measures of success, and corrective measures in the event of not achieving all required measures of success. Selected mitigation sites must also contain easements, deed restrictions, or similar measures to ensure that they will remain jurisdictional waters of the U.S. and not be altered for any purpose.

11. We also recommend consideration of a single 404 permit to cover the dredge and fill permitting for the project due to the numerous aquatic impacts. We feel this is preferred over issuance of a combination of numerous individual and nationwide permits, since it may allow for improved cumulative effects evaluation as well as to reduce paperwork and permit processing time, and assure that all necessary permits for dredge and fill activities can be obtained for the full project. Although we realize if the project is to be constructed in several segments over varying time periods it may be appropriate to permit each construction segment individually.

## Hydrology and Water Quality

12. We should also note that the proposed project will also need to obtain appropriate Water Quality Standards certification from the Montana DEQ in accordance with Section 401 of the Clean Water Act, during the 404 permitting process (contact Jeff Ryan of MDEQ in Helena at 406-444-4626).
13. Table 2-1 shows that the Western Alignment crosses 42 non-perennial streams (with 40 such crossings for the Four Mile Creek Alternative), however, we could not find clear identification of the number of perennial stream crossings for the Western Alignment and Four Mile Creek Alternative, and the entire TRR. Also, we could not locate a map that clearly showed all the proposed stream crossing locations (perennial and non-perennial streams) of the proposed Western Alignment as well as other segments of the TRR. A map or maps clearly showing all stream and river crossing locations for the Western Alignment and other segments of the TRR would be helpful. Maps on the scale of Figure 4-13 (page 4-159) that show the Western Alignment stream crossings west of Tongue River Reservoir would be helpful to clearly identify locations of all stream crossings for Tongue River I, II, and III.
14. Railroad construction and operation, and maintenance can impact streams from erosion and sediment transport, runoff, disruption of drainage patterns, stockpiling of materials in staging areas, maintenance of construction and maintenance equipment, fuels spills, deposition of coal dust, and road and rail line maintenance. The Western Alignment would cross steeper, more rugged terrain than the Four Mile Creek Alternative, with cuts from 100 to 200 feet high and fills from 100 to 180 feet deep anticipated (page 4-101). The DSEIS states that the construction of the Western Alignment will have potential to increase sediment loads and adverse water quality impacts to the Tongue River (page 4-109). Instability in cut slopes and/or fills can lead to slope failures, which could transport significant quantities of sediment to the Tongue River, although such slope failures would be mitigated by revegetation and restoration of the slopes (page 4-102). Tables 1-1 and 4-22, show a potential increase in sediment load to the Tongue River of 6,770-10,600 tons/year vs. 3,650-6,000 tons/year from the Four Mile Creek Alternative that would increase total suspended sediment (TSS) levels by 16-37 mg/l and 8-21 mg/l, respectively.

The proposed Tongue River I and II realignment would increase the amount of cut and fill, with the volume of earthwork increasing for Tongue River I from 14.2 million yds<sup>3</sup> to 18.6 million yds<sup>3</sup>, and the volume of earthwork increasing for Tongue River II from 12.4 million yds<sup>3</sup> to 14.8 million yds<sup>3</sup> (page 5-13). These realignments would increase erosion potential that could cause increased sediment loads to the Tongue River (page 5-14), although the DSEIS states that with implementation of proposed mitigation measures no significant impacts would occur from proposed realignments of Tongue River I and II.

Increased sediment loads to surface waters can cause adverse effects to aquatic life, including increased turbidity in surface waters that reduce light penetration in the water column and potentially reduce productivity of streams, and deposition of sediment in stream channels that impair fish spawning areas and smother fish eggs. It is important that all possible means of avoiding and reducing sediment production and transport to surface waters are utilized.

We are pleased that the Mitigation Measures will require an MPDES permit from the Montana Dept. of Environmental Quality (MDEQ) including a Stormwater Pollution Prevention Plan, and that an Erosion Control Plan will be prepared to minimize potential stormwater runoff pollutant discharges to surface waters that may occur during construction (Mitigation Measure 36, pages 4-103, 5-15, 7-26), and are pleased that Mitigation Measures 37 through 51 would address other potential sediment sources. A comprehensive Storm Water Pollution Prevention Plan (SWPPP) and Erosion Control Plan and mitigation measures must assure that sediment loading and other potential impacts upon water quality are sufficiently controlled to maintain support for designated beneficial uses (i.e., maintain compliance with applicable State and Tribal Water Quality Standards). As discussed in comment #15 below there is also a need to avoid further degradation of 303(d) listed waters and assure that rail line construction and operation are consistent with preparation of Total Maximum Daily Loads and Water Quality Restoration Plans for listed waters.

15. Portions of the Tongue River, Tongue River Reservoir, Hanging Woman Creek, Otter Creek, and Pumpkin Creek were listed as water quality impaired on Montana's 1996 Clean Water Act Section 303(d) list of impaired waters. Although more recent Montana 303(d) lists have adjusted water quality impairment listings, EPA and the State of Montana have reached a Settlement Agreement with plaintiffs on water quality lawsuits and entered into a Consent Decree recently approved in Federal District Court in Missoula to prepare TMDLs for all waters on Montana's 1996 Section 303(d) list. The following table provides information on the water quality impairment listings in the 1996 Section 303(d) list for waters within the Tongue River watershed.

**Table 1. 1996 listing information for the Tongue River watershed.**

Segment	Size (mi)	Impaired Uses	Probable Cause
Tongue River (WY border to Tongue River Reservoir) (Tongue River Above Reservoir)	4	Agriculture Aquatic life Coldwater fishery	Flow alteration
Tongue River Reservoir	3,500 acres	Aquatic life Coldwater fishery Swimmable	Nutrients Organic enrichment/ dissolved oxygen Suspended solids
Tongue River (TRR Dam to the confluence with Hanging Women Creek) (Upper Tongue River)	31	Aquatic life Coldwater fishery	Flow alteration

Segment	Size (mi)	Impaired Uses	Probable Cause
Tongue River (Hanging Women Creek to diversion dam) (Middle Tongue River)	117.6	Agriculture Aquatic life Warmwater fishery	Flow alteration Metals Other inorganics Salinity/TDS/chlorides Suspended solids
Tongue River (diversion dam to mouth) (Lower Tongue River)	20.4	Agriculture Aquatic life Warmwater fishery	Flow alteration Metals Other inorganics Salinity/TDS/chlorides Suspended solids
Hanging Woman Creek	30	Agriculture Aquatic life Warmwater fishery	Flow alteration Metals Salinity/TDS/chlorides
Otter Creek	53	Agriculture Aquatic life Warmwater fishery	Metals Other habitat alterations Salinity/TDS/chlorides Suspended solids
Pumpkin Creek	87	Agriculture Aquatic life Warmwater fishery	Flow alteration Salinity/TDS/chlorides Thermal modifications

Source: MDEQ, 1996.

The more recent Montana 303(d) lists show water quality impairments for:

-Tongue River from just above Pumpkin Creek to its confluence with the Yellowstone River is listed as water quality impaired, with probable causes of impairment identified as flow alteration;

-Tongue River Reservoir with probable causes of impairment identified as algal growth/Chlorophyll a (nutrients);

-Hanging Woman Creek with probable causes of impairment identified as siltation;

-Otter Creek, Pumpkin Creek, and other segments of the Tongue River have not been assessed.

Stream segments designated as “water quality impaired” and/or “threatened” listed on State 303(d) lists require development of a Total Maximum Daily Load (TMDL). A TMDL:

*Identifies the maximum load of a pollutant (e.g., sediment, nutrient, metal) a waterbody is able to assimilate and fully support its designated uses; allocates portions of the maximum load to all sources; identifies the necessary controls that may be implemented voluntarily or through regulatory means; and describes a monitoring plan and associated corrective feedback loop to insure that uses are fully supported; Or can also be viewed as, the total amount of pollutant that a water body may receive from all sources without exceeding WQS; Or may be viewed as, a reduction in pollutant loading that results in meeting WQS.*

Montana's approach is to include TMDLs as one component of comprehensive Water Quality Restoration Plans (WQRPs). TMDLs/WQRPs contain eight principal components:

1. Watershed characterization (hydrology, climate, vegetation, land use, ownership, etc.)
2. Description of impairments and applicable water quality standards.
3. Pollutant source assessment and estimate of existing pollutant loads, including pollutant loads in tributaries to 303(d) listed waters..
4. Water quality goals/restoration targets.
5. Load allocations (i.e., TMDLs).
6. Restoration strategy
7. Monitoring Strategy
8. Public involvement (30 day public comment period, informational meetings, etc.)

The load allocations and targets established by TMDLs/WQRPs inform land managers how much sediment, nutrient or other pollutant discharge may be too much (i.e., prevent support of beneficial uses). A WQRP provides a means to track the health of a stream over time. If a WQRP has not restored beneficial uses within five years, the Montana DEQ conducts an assessment to determine if:

- \* the implementation of new and improved BMPs are necessary;
- \* water quality is improving but more time is needed to comply with WQS; or
- \* revisions to the plan will be necessary to meet WQS.

The Montana Dept. of Environmental Quality (MDEQ) and EPA are under a Court Ordered schedule to prepare TMDLs. Montana has divided the State into TMDL Planning Areas, grouping streams with similar water quality problems and land ownership as much as possible on a watershed basis. Each TMDL planning area may include 4 to 10 impaired watersheds that have specific TMDL preparation needs. Pending completion of a TMDL in Montana, new and expanded nonpoint source activities may commence and continue, provided those activities are conducted in accordance with (MCA 75-5-703). The Administrative Rules of Montana (17.30.602) define these as "methods, measures, or practices that protect present and reasonably anticipated beneficial uses."

"Reasonable soil, land and water conservation practices" include but are not limited to structural and nonstructural controls and operation and maintenance procedures. Appropriate practices may be applied before, during, or after pollution producing activities. It is important to note that "reasonable soil, land and water conservation practices" are differentiated from BMPs, which are generally established practices for controlling nonpoint source pollution. BMPs are largely practices that provide a degree

of protection for water quality, but may or may not be sufficient to achieve Water Quality Standards and protect beneficial uses. “Reasonable soil, land and water conservation practices” include BMPs, but may require additional conservation practices, beyond BMPs to achieve Water Quality Standards and restore beneficial uses.

It is EPA’s policy that projects within watersheds of 303(d) listed waterbodies should avoid further degradation of the 303(d) listed waterbodies. It is important, therefore, that proposed TRR railroad construction and operation activities do not worsen Tongue River, Hanging Woman Creek, Tongue River Reservoir, Otter Creek, and Pumpkin Creek water quality impairments, and that railroad construction and operation activities are consistent with TMDLs and WQRPs being prepared for the Tongue River TMDL Planning Area.

Sediment loads associated with Western Alignment railroad construction are presented (Table 4-22), however, post-construction sediment loading after implementation of BMPs and mitigation measures are not presented. Without this information, we are unable to accurately determine if the proposed action will be consistent with TMDLs and in compliance with Montana’s Water Quality Standards. We recommend, therefore, that post-project sediment loads be calculated including the load reductions anticipated through application of BMPs and mitigation measures.

It may be necessary to propose implementation of additional erosion and sediment control measures to control existing sources of pollutant loading to listed waters to offset or compensate for TRR caused pollutant loads (e.g., propose stream bank stabilization, revegetation, stream restoration, fish habitat improvements, sediment traps, other BMP improvements). Proposed rail line construction activities, including pollutant (sediment) loading and water quality improvement and restoration activities, should be discussed with MDEQ, EPA, and any local watershed groups that are involved in preparing TMDLs and WQRPs, to help assure TRR consistency with TMDL and WQRP development. We recommend that the STB and TRRC contact the TMDL Program Managers for the Montana Department of Environmental Quality (i.e., George Mathieus at 406-444-7423) and EPA (Ron Steg at 406-457-5024) to ensure MDEQ and EPA concurrence on, and coordination of proposed activities with the MDEQ/EPA Tongue River Planning Area TMDL and WQRP development.

We also recommend that Mitigation Measure 41 (page 7-25) be revised to include assurances that sediment loads to surface waters be in compliance with Montana Water Quality Standards (i.e., maintain protection of designated beneficial uses), and that sediment loads do not aggravate impairments to 303(d) listed streams (e.g., Tongue River, Hanging Woman Creek, Tongue River Reservoir, Otter Creek, Pumpkin Creek) and be consistent with TMDLs and WQRPs.

16. The DSEIS state that bridges would be constructed at two Tongue River crossings and at Otter Creek and Hanging Woman Creek, and that culverts would be placed according to

final engineering design, and designed to safely withstand a 25 year peak flood event with one pipe diameter of headwater (App. D, Mitigation Plan, pages 5, 6).

Stream crossings should be able to maintain the integrity and continuity of the floodplain as well as the actual channel to avoid impeding flood flows that could cause deposition above stream crossings and erosion and scouring below crossings. It will be important to assure that the bridge designs accommodate flood flows with no substantial changes to flood elevations, and bridge designs should match hydraulic traits of the natural stream, and provide for fish passage (bridge abutments should be avoided within active river channels). Size and configuration of bridges should reduce floodplain encroachment (e.g., construction of bridges on pilings, as opposed to fill, can reduce encroachment). We support provision of an adequate span on bridge crossings to minimize encroachment upon the river channel, riparian area, and floodplain. Bridges with wide spans also afford opportunities for wildlife passage, and may reduce potential for train-wildlife collisions.

Bridges or open bottom arch culverts that allow natural stream bed substrate and stream grade, and sufficient width and capacity to pass flood flows and bedload transport with minimal encroachment upon the river channel and riparian area are preferred. We recommend that all culverts simulate the natural stream grade and substrate as much as possible, and encourage use of open bottom culverts that provide a natural streambed.

Bridge and culvert construction work should be conducted during periods of low stream flow in late summer or early Fall to minimize impacts on the stream channel during construction. Special care should be taken during construction to avoid or minimize impacts to riparian vegetation as much as possible.

The proposed engineering design and mitigation measures addressing stream crossings, culverts, and bridged (i.e., Mitigation Measures 44 through 51, pages 7-26, 7-27) must assure that the principles to accommodate flood flows and minimize disturbance to stream hydrology, riparian functions, and stream banks and channel are incorporated into the design and planning and mitigation measures for bridges and culverts.

17. Mitigation Measure 34 (page 4-91) will require study of aquatic resources at locations where the railroad will cross the Tongue River (where the DSEIS states “extensive” riprapping would occur), including a stream habitat survey, benthic macroinvertebrate monitoring, and fish surveys. We are concerned about the suggestion that “extensive” riprapping will occur. Riprapping can lead to erosion in areas of the river/stream that are not stabilized, which often leads to the eventual need to stabilize more and more of the stream, impairing aquatic habitat and decreasing bio-diversity in the riparian system. We recommend that “extensive” rock riprapping be avoided. We encourage use of vegetative bank stabilization methods with plantings of deep rooted woody shrubs and natural looking log and root wad placements as much as possible that reduce such adverse effects. We encourage the Multi-agency Task Force that will oversee such activities

(Mitigation Measure 25) to require development of mitigation measures that focus on bio-engineered bank stabilization methods.

18. Fuels spills at rail yards with resulting ground water contamination have sometimes been issues of concern in regard to railroad operations. We are pleased that Mitigation Measure 62 requires development of a Spill Prevention Plan to prevent spills of oil or other petroleum products during construction, operation and maintenance of the rail line (page 7-29). This Spill Prevention Plan should identify preventive measures that will be employed by TRRC to prevent ground water and surface water contamination. All rail yards should be required to incorporate BMPs in and around the yards to reduce the potential of ground water and surface water contamination. We recommend that TRRC and STB coordinate with local public health and water quality agencies and the Montana DEQ when determining the actual locations of rail yard. We recommend that areas of high ground water table be avoided in siting rail yards. Proposed rail yard sites must be compatible with Federal, state and local requirements that govern the use of land within wellhead and "source water protection" areas for public water supply.

#### Air Quality

19. The DSEIS attempts to demonstrate that overall emissions of air pollutants from the proposed Western Alignment would be lower than emissions from the previously-approved Four Mile Creek Alternative. While the narrative includes several statements to this effect, we recommend verifying or correcting the information presented and including additional information to better support the statements. Some of the technical information on the air quality analysis appears to derive from the reference, "Air Quality Impact Analysis Update TRR III Tongue River Railroad Project," April 22, 2004, by CH2MHill. We recommend including this document, or other detailed version of the air quality impact analysis, as a technical support document appended to the FEIS.

Please present data in units that support the claims. Three tables that present data on emissions during construction and fugitive dust emissions during operation show emissions in tons per mile per year (tons/mi-yr) but lack information on total emissions. Data on total emissions by alternative (i.e., the two entire rail segments) in tons during construction or tons per year during operation would be valuable. Expressed in tons/mi-yr, construction-phase fugitive dust emissions (table 4-32, page 4-146) and construction-phase combustion emissions (table 4-33, page 4-147) from the proposed Western Alignment would be greater than emissions from the Four Mile Creek Alternative. On the other hand, fugitive dust emissions in tons/mi-yr during operation (table 4-34, page 4-149) would be greater in the Four Mile Creek Alternative than in the case of the Western Alignment. The narrative discloses that the total construction-phase combustion emissions from the Western Alignment would exceed those from the Four Mile Creek Alternative. The DEIS does not show the total (or total annual) emissions, by alternative, in any of the three cases. While the data in tables 4-32, 4-33, and 4-34 are helpful, we



recommend that the FEIS also include a comparison between the two alternatives of the estimated total (or total annual) emissions in tons. Also, the FEIS should clarify that the Prevention of Significant Deterioration (PSD) thresholds (which should be expressed tons per year and not tons/mi-yr) are used for comparison purposes and do not have regulatory significance in this application.

Evidently the analysts intended to separate particulate ( $PM_{10}$ ) emissions into components of fugitive dust and combustion; however, the information should be verified before it is published in the FEIS. Table 4-32 is titled "Construction-period Fugitive Dust Emissions" but also contains some particulate from combustion sources according to the footnotes. Because the fugitive dust data appear in Table 4-32, please exclude these data from Table 4-33, leaving only combustion emissions in the  $PM_{10}$  column of Table 4-33. Table 4-34 shows fugitive dust emissions during operation and a column of Table 4-35 shows locomotive  $PM_{10}$  emissions during operation; however the data are identical. Please confirm and revise these data as appropriate for the FEIS.

20. According to the last paragraph on page 4-149, "SEA's analysis determined that the approved Four Mile Creek Alternative would result in a higher level of annual emissions, because it has steeper grades that require more fuel use, and because it is longer than the proposed Western Alignment." The statement is significant because it compares the long-term impacts of the two alternatives on air quality. Consequently, we urge SEA to clarify the data that support the statement. The data appearing in Table 4-35 are supposedly in tons/mi-yr (see additional discussion below); however, the  $NO_x$  emissions of 22.9 tons/mi-yr are not consistent with the statement on page 6-23, "The operation of trains over TRRC's rail line via the proposed Western Alignment would generate 13.9 tons per year." (The Western Alignment is 17.3 miles long.) Please revise this information in the FEIS.

Please verify the information shown in Tables 4-35 and 4-36, which compare the operational emissions of the two alternatives, overall and with a breakdown between Rosebud County and Big Horn County. Both tables supposedly give emissions in tons/mi-yr. However, for each combination of pollutant and alternative in Table 4-36, the sum of the emissions for Big Horn County and Rosebud County equals the corresponding emission rate in Table 4-35, casting doubt on the units. Including the phrase "Miles City to Decker" in the row headings adds to the confusion as it implies the emission rates might be in tons/mi-yr, apportioned for the entire length of the TRR. While a comparison of total projected annual emissions from the 17.3 miles of the Western Alignment and the 29.3 miles of the Four Mile Creek Alternative would be valuable, it is unclear that these two tables make the desired comparison. Please revise the two tables.

21. The paragraph titled "Conclusions," which runs between pages 6-23 and 6-24 cites the mitigation measures listed in the air quality section, 4.3.7. One of the measures cited is "additional air quality modeling;" however, a mitigation measure that includes modeling

could not be found in section 4.3.7 or in section 7.2.7, "Air Quality Mitigation." Please clarify the reference to modeling in the FEIS.

22. Section 8.0 addresses unavoidable adverse environmental effects. The paragraph on air quality discloses that fugitive dust emissions from construction of the Western Alignment would exceed the corresponding emissions that would occur in constructing the Four Mile Creek Alternative, as discussed above. According to our understanding of the information presented in section 4.3.7, this is erroneous. It is the combustion emissions during construction that would be greater from the proposed action, i.e., the Western Alignment, than from the alternative, i.e., Four Mile Creek (see page 4-147, lines 10 – 12). Possibly the difference is due to confusion over the use of emissions allocated per mile (tons/mi-yr) and not total annual emissions in tons. However, it is also possible that this paragraph in section 8.0 refers to other information from the air quality impact analysis; the emission rates of 7.07 tons/mi-yr and 4.39 tons/mi-yr appear to contradict the data presented in Tables 4-32 and 4-33. Although intensity of emissions should be considered for short-term local impacts, we believe that SEA should compare the two alternatives on a basis of total annual emissions, not an emission rate per mile of rail. In order to make this comparison accurately, please include the detailed technical information from the air quality impact analysis, verify the information presented, and make revisions where appropriate in the FEIS.

#### Noise and Vibration

23. The DSEIS indicates that there would be potential for blasting impacts during TRR construction on the integrity of Tongue River Dam (page 4-153), and the extent of blasting and blasting impacts is unknown at this time. It is critical that conditions be placed in project approvals to assure that appropriate geotechnical investigations are carried out prior to construction to assure that TRR construction does not affect the integrity of Tongue River Dam. We are pleased that Mitigation Measure 76 requires TRRC to conduct a seismic analysis to quantify risk of construction activities to Tongue River Reservoir and will consult with the Montana DNRC during development of geotechnical-drilling/blasting plans within two miles of the dam (page 7-32).
24. It is not clear to us why the TRR alignment near Miles City can not avoid the Montana Dept. of Fish, Wildlife & Parks Fish (MDFWP) Hatchery. This hatchery provides stocking sources for many species of warm water fish, including the endangered pallid sturgeon. Table 4-38 (page 4-155) shows an average of 14 coal trains per day with 113 cars per train for the Western Alignment. It is not clear if this is the number of coal trains per day that would be estimated to run at Miles City, but if 14 coal trains per day (or perhaps more at Miles City) pass within a few hundred yards of the fish hatchery, we are concerned that it may result in adverse effects to fish hatchery operations (i.e., reduce success of hatching, rearing and production of fish).

The DSEIS identifies potential concerns regarding vibrational effects on fish production, as well as concerns regarding coal dust and herbicide use for weeds along the railroad corridor near the hatchery (pages 5-6, Appendix F). We are pleased that Mitigation Measure 85 indicates that only mechanical weed control will be used near the fish hatchery (page 5-8), and are pleased that Mitigation Measure 86 (page 7-34) requires TRRC to continue to consult with the MDFWP. However, we are concerned that such consultation may not result in effective avoidance of adverse effects to fish hatchery operations and warm water fish stocking programs. The analysis and disclosure of potential noise and vibrational effects and coal dust upon fish hatchery operations and success in Appendix F of the DSEIS does not alleviate all the concerns.

We are particularly concerned about effects to fisheries programs for recovery of the endangered pallid sturgeon. The Miles City Hatchery supplies the only pallid sturgeon young for pallid sturgeon population recovery in the Missouri River above Fort Peck Reservoir, and reduction in pallid sturgeon production at the hatchery could adversely affect these recovery efforts. Mitigation Measure 87, that requires TRRC to adhere to "reasonable" mitigation conditions imposed by MDFWP, may not avoid adverse fish hatchery effects if TRRC determines what a "reasonable" mitigation condition would be. This provision of Mitigation Measure 87 should be clarified. We believe Mitigation Measure 87 should require TRRC to adhere to mitigation conditions imposed by MDFWP that effectively avoid adverse effects upon hatchery operations. We also believe improved analysis and disclosure of potential TRR construction and operation effects upon fish hatchery operations and success of hatching, rearing and production of fish are needed. Adverse impacts to warm water fish stocking programs associated with potential reduced fish production at the hatchery should be adequately considered.

Also, it is not clear to us why alternative railroad alignments that move the railroad away from the hatchery to avoid potential construction and operation effects upon the fish hatchery were not analyzed and presented. We believe alternative railroad alignments that move the railroad away from the hatchery are likely to be the most effective means of avoiding adverse effects to fish hatchery operations and fish production. Accordingly, we believe alternative railroad alignments that move the railroad away from the hatchery to avoid or reduce potential railroad construction and operation effects upon the fish hatchery should be evaluated and presented.

It would be helpful if a cost-benefit analysis for alternative railroad alignments at Miles City were provided to allow improved understanding of the economic advantages of the proposed alignment near the fish hatchery for comparison with other potential alignment alternatives, and associated with such cost-benefit analysis should be improved evaluation of potential impacts to the fish hatchery, and any other unquantified environmental impacts, values and amenities associated with Miles City alignment alternatives to fully evaluate all the various options and trade-offs. As noted earlier, the CEQ regulations for implementing NEPA (40 CFR 1502.23) indicate that when a cost-benefit analysis is

prepared, it should include discussion of the relationship between the cost-benefit analysis and any analyses of unquantified environmental impacts, values and amenities. It presently appears that economic advantages to the TRRC from their preferred Miles City alignment is taking precedent over alternatives that may avoid fish hatchery impacts.

#### Vegetation and Weeds

25. We are pleased that TRRC will be required to conduct a field search of the alignment during final phase engineering to identify plant species of concern and to implement appropriate mitigation measures during construction if such species are found (Mitigation Measure 18, page 4-71).
26. We are also pleased that TRRC will be required to implement reclamation and revegetation of the right-of-way with Task Force oversight (Mitigation Measures 19 and 20, page 4-73).
27. Many noxious weeds can out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife, and are a threat to biodiversity. Noxious weeds tend to gain a foothold where there is disturbance in the ecosystem, such as construction activities. TRRC should track weed infestations and implement weed control actions and monitor effectiveness of weed control actions along the railroad corridor. Early recognition and control of new infestations is needed to stop the spread of the infestation and avoid wider future use of herbicides, which could correspondingly have more adverse impacts on water quality, fisheries, and biodiversity.

We are pleased that TRRC will develop a written Noxious Weed Control Program in consultation with local ranchers, county extension agents, and the Task Force prior to construction of the rail line (Mitigation Measure 21, pages 4-77, 7-17). EPA supports development of the Noxious Weed Control Program for prevention, early detection of invasion, and control procedures for noxious weed infestations. We are also pleased that Mitigation Measure 85 indicates that only mechanical weed control will be used near the Miles City fish hatchery (page 5-8), and that Mitigation Measure 65 requires response to herbicide spills (page 4-135).

When herbicides are used there is a need to use such chemicals in a safe manner that ensures protection of surface water ecological integrity, and worker and public health and safety. EPA encourages prioritization of management techniques that focus on non-chemical treatments first, with reliance on chemicals being the last resort, since weed control chemicals can be toxic and have the potential to be transported to surface or ground water following application. Herbicide drift into streams and wetlands could adversely affect aquatic life and wetland functions such as food chain support and habitat for wetland species. No spraying should occur in or near streams, wetlands or other aquatic areas. All efforts should be made to avoid movement or transport of herbicides

into surface waters that could adversely affect fisheries or other water uses.

Picloram is a particularly persistent, mobile and toxic herbicide. Drainage ways and ditches leading to intermittent and perennial streams should be flagged as no-spray zones and not sprayed with picloram based herbicides or other herbicides that are mobile and toxic to aquatic life. We recommend that picloram not be used at rates greater than 0.25 lbs/acre. We also suggest that the TRRC consider applications of persistent herbicides such as picloram only once per year to reduce potential for accumulation in soil. Potential for persistent herbicides to accumulate in soil in harmful amounts are reduced if sites are treated only once per year (twice being the limit). Trade-offs between effective weed control and effects on soil productivity and leaching concerns may need to be considered. A second treatment application if needed should only occur after 30 days (or according to label directions).

For your information, Dow AgroSciences, the manufacturer of Tordon 22K, has recently developed supplemental labeling for Tordon 22K for areas west of the Mississippi River. They have directions for wick or carpet roller applications. Tordon 22K herbicide can be applied using wick or carpet roller equipment where drift presents a hazard to susceptible crops, surface waters, and other sensitive areas. One part Tordon 22K is mixed with 2 parts water to prepare a 33% solution. The wick method of application is more labor intensive but very effective at targeting particular noxious weeds adjacent to surface waters, wetlands, or protected plants.

Most picloram products, including Tordon 22K, are Restricted Use Pesticides (RUPs) requiring pesticide applicator certification to purchase and apply. It is important that TRRC employees involved in chemical weed control be certified.. If commercial applicators will be contracted for RUP applications, we recommend checking to make sure their MT commercial RUP license is current. Please contact Montana Dept. of Agriculture at (406) 444-5400 for more information. Also, please note that registration for Access (which has picloram as an active ingredient) is cancelled.

Some suggestions we have to reduce potential water quality and fisheries effects from herbicide spraying are to assure that applicators: 1) are certified and fully trained and equipped with the and appropriate personal protective equipment; 2) apply herbicides according to the label; 3) clean and wash construction equipment to remove weed seed sources; 4) use treatment methods that target individual noxious weed plants in riparian and wetland areas (depending on the targeted weed species, manual control or hand pulling may be one of the best options for weed control within riparian/wetland areas or close to water); and 5) reseed disturbed sites as soon as possible following disturbance. The herbicide application technique of hand or manual wipe-on (especially applicable for contact systemic herbicides such as glyphosate) may be an option to control individual plants up to the existing water level adjacent to streams or sensitive aquatic sites.

For your information, the website for EPA information regarding pesticides and herbicides is <http://www.epa.gov/pesticides/>. The National Pesticide Telecommunication Network (NPTN) website at <http://nptn.orst.edu/tech.htm> which operates under a cooperative agreement with EPA and Oregon State University and has a wealth of information on toxicity, mobility, environmental fate on pesticides that may be helpful (phone number 800-858-7378).

We encourage revegetation (reseeding with native grass mix) to seed disturbed areas where the vegetation density is low enough to allow reinfestation or introduction of other noxious weeds, or erosion. The goal of the seeding program should be to establish the sustainability of the area. Where no native, rapid cover seed source exists, we recommend using a grass mixture that does not include aggressive grasses such as smooth brome, thereby allowing native species to eventually prevail. Mr. Phil Johnson, Botanist, Montana Dept. of Transportation, in Helena at 444-7657, may be able to provide guidance on revegetation with native grasses.

#### Wildlife, Threatened and Endangered Species, and Recreation

28. It is stated in the Biological Assessment in Appendix L that the TRR project is not likely to adversely affect the threatened bald eagle, pending MDFWP 2004 data (page 46). The Biological Assessment also concludes that the TRR is not likely to adversely affect other threatened and endangered species that may be in the project area (e.g., black-footed ferret, whooping crane, interior least tern, pallid sturgeon). Our discussions with U.S. Fish & Wildlife Service (USFWS) staff indicate that there are concerns regarding potential adverse effects to the bald eagle. We understand from dialogue with USFWS staff that bald eagles use the Tongue River Valley for foraging, nesting and roosting activities, and there may be as many thirteen bald eagle nests along the Tongue River, and as many as 50 bald eagles using the Tongue River Valley between Miles City and Tongue River Reservoir during migration periods; and that there is potential for adverse impacts to the bald eagle along the modified TRR route via the Western Alignment.

We believe the TRRC should be required to work with the USFWS and MDFWP to gather more up-to-date information on threatened & endangered (T&E) species potentially impacted by the TRR, and should be required to monitor actual effects to T&E species, particularly effects to the bald eagle to assure that adverse effects to T&E species do not occur, and if adverse effects are found, to mitigate those effects. There may be a need for the TRRC and STB to enter into formal consultation with the USFWS if adverse effects to the bald eagle are found to be likely to occur. We are pleased that the TRRC will be required to adhere to mitigation conditions imposed by the USFWS in a Biological Opinion or Biological Assessment (page 7-17). Mitigation Measure 24 should also specify wildlife monitoring requirements as determined by the USFWS.

29. The DSEIS indicates that access to Block Management Areas would be restricted during TRR construction and hunting areas and wildlife populations would be fragmented (page 4-176, 177, 5-26). We are concerned that the proposed TRR may adversely affect recreational opportunities by affecting public access to fishing and hunting during railroad construction.

#### Cumulative and Indirect Effects

30. Several coal mines that would be served by the TRR (e.g., CS Ranch Mine, King Creek Mine, Otter Creek Mine, East and West Decker Mine, Spring Creek Mine, page 2-4) are mentioned in the DSEIS, and it is also stated that the largest remaining undeveloped reserves of low sulfur, high BTU, sub-bituminous coal in the U.S. are located near Ashland, Montana, and the TRR would provide the first rail service to these reserves, and is essential to their development (Appendix D, pages 7, 8). However, the maps in the DSEIS and on page 10 in the Appendix D Conceptual Habitat Mitigation Plan, do not appear to clearly show the locations of all the existing and reasonably foreseeable future mines and coal reserves that would be served by the TRR. It would be helpful if all the existing and reasonably foreseeable future mines and coal reserves that would be served by the proposed TRR would be shown on a map(s). It would also be helpful if all perennial streams, such as Hanging Woman Creek, Otter Creek and the Tongue River were shown on maps so that the location of future coal mine development to surface waters was evident.
31. As noted earlier, the DSEIS states (Appendix D, page 8) that the TRR is essential to the development of Ashland area mines, which have no alternative means of economic transport without the railroad. The largest remaining undeveloped reserves of low sulfur, high BTU, sub-bituminous coal in the U.S. are located near Ashland (Appendix D, page 7). It is further stated that the State of Montana recently acquired an estimated 530 million tons of coal reserves from the federal government in the Otter Creek tracts near Ashland. It is likely that an indirect effect of the TRR may be facilitation or inducement of future coal mine development in these areas. The DSEIS indicates that development of the Montco Mine and other potential mines in the Ashland area with production of up to 18 million tons of coal by 2012 to be transported by the TRR have already been evaluated in earlier EIS documents. It is not clear to us, however, if the indirect and cumulative environmental impacts of potential reasonably foreseeable future coal mining that may be induced or facilitated by the TRR has been adequately analyzed and presented in accordance with 40 CFR 1508.7 and 1508.8.
32. It is stated that Wyoming coal is presently transported to midwestern markets via the circuitous Sheridan to Miles City BNSF railroad route, and some of this Wyoming coal is likely to be transported over the more direct TRR route (Appendix D, page 8). Concerns have been evidenced that a more efficient transportation route for Wyoming coal may lead to additional mining of Wyoming coal, and that may also have an impact on the



production of coal in Montana, with resultant environmental, social and economic effects. Is it likely that this more efficient TRR coal transport route may result in additional mining of Wyoming coal in this area, resulting in additional associated environmental, social and economic impacts? If so, these additional associated environmental, social and economic impacts should be more fully and clearly analyzed and presented.

33. Table 6-1 (page 6-8) shows planned power plants in Montana and Wyoming. We note that on September 24, 2004 a Notice of Intent to prepare an EIS was published by the Rural Utilities Service of the USDA regarding a proposal by the Southern Montana Electric Generation and Transmission Cooperative to construct and operate a 250 megawatt (MW) coal-fired electric generation plant near Great Falls, Montana. This potential future new power plant is missing from Table 6-1. Mr. Nurul Islam of the Rural Utilities Service may be contacted at 202-720-1414 for further information regarding this project.
34. We are concerned about the cumulative impacts that may occur in the project area due to additive effects from energy development, particularly coal bed methane (CBM) development (e.g., such as aquifer drawdown near CBM gas wells, additional soil erosion and compaction from well and road construction, water quality impacts, disruption and fragmentation of wildlife, dust and particulate air emissions from construction, and localized increases in CO, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, and PM<sub>10</sub> concentrations, page 6-10). CBM development along with the added effects of TRR construction and operation and future coal development are likely to result in significant cumulative environmental effects in the project area, and these effects need to be considered in evaluating railroad impacts and by decision makers in determining acceptable levels of impacts to the project area.

#### Cultural Resources

35. The DSEIS states that the proposed Western Alignment could affect paleontological and cultural resources (page 4-118), and that impacts would be mitigated by provisions in the Programmatic Agreement (Appendix G, Mitigation Measure 52). We are pleased that efforts have been made to consult with Native Americans (Appendix M), and that the draft Programmatic Agreement (Appendix G) includes the Northern Cheyenne and Crow Tribes. Has this Programmatic Agreement been finalized? Are the above noted Tribes signatory to this Agreement? If the Tribes have not signed this Programmatic Agreement how will National Historic Preservation Act cultural resource consultation requirements be met? We understand that the Northern Cheyenne Tribe has concerns about potential TRR impacts to paleontological and cultural resources in the area, and it is not clear how these concerns will be addressed.



## Tribal Trust Responsibilities

36. President Clinton's memorandum of April 29, 1994, describes government-to-government relations with Native American tribal governments. The U.S. has a unique relationship with tribal governments which requires that federal government plans, projects, programs and activities assess impacts on tribal trust resources. Trust resources are located within the exterior boundaries of reservations and outside the reservation in Usual and Accustomed fishing and hunting areas. Agencies should assess all impacts to tribal trust resource and include those impacts in the agencies' environmental documents. Each agency shall consult to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally-recognized tribal governments. The environmental document shall fully disclose the potential environmental impacts, both negative and positive, on tribal trust resources.

We note that it appears that there may be indirect and cumulative effects on Tribal Trust resources from coal development on or near Northern Cheyenne Reservation boundaries that may be induced or facilitated by the TRR. Clear disclosure of direct, indirect and cumulative impacts of potential TRR construction and operation on Tribal Trust resources is needed.

## Environmental Justice

37. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires that Federal agencies make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on minority populations and low-income populations. The Executive Order makes clear that its provisions apply fully to Native Americans.

Environmental justice issues encompass a broad range of impacts covered by NEPA, including impacts on the natural or physical environment and interrelated social, cultural, and economic impacts. The STB should develop a strategy for effective public involvement of minority (e.g., Native American) and low-income populations in determining siting considerations, analyzing environmental, social, cultural and economic effects, and developing mitigation measures. Detailed guidance on addressing Executive Order 12898 in NEPA documents is available from the Council on Environmental Quality.

We are pleased that Mitigation Measure 82 indicates that the TRRC will appoint a liaison with the Northern Cheyenne Tribe to ensure that tribal members receive an equal opportunity to apply for and secure temporary construction and full time operational jobs with the railroad (page 4-163), and that Mitigation Measure 83 requires TRRC to make available to the Northern Cheyenne Tribe all public data and studies concerning facilities

and services that may be required as a result of mine development in the area (page 7-33).

We note that the DSEIS states that the SEA preliminarily concludes that the construction and operation of the TRR will not have a disproportionately high and adverse impacts on minority or low-income populations (page 4-175). Does this preliminary conclusion include adequate evaluation of potential indirect and cumulative human health and environmental effects from coal development on or near Northern Cheyenne Reservation boundaries that may be induced by TRR development, and potential effects to Tribal cultural and paleontological resources?

## Pollution Prevention

38. We raise the pollution prevention issue here in a general manner to simply note that there is a national policy directed at reduction of pollution, recycling, and conservation of resources. Under Section 6602(b) of the Pollution Prevention Act of 1990, Congress established a national policy that organizes preferences for pollution prevention:

- Pollution should be **prevented** or **reduced** at the source whenever feasible (i.e. increase efficiency in use of raw materials, energy, water, etc.);
- Pollution that cannot be prevented should be **recycled** in an environmentally safe manner whenever feasible;
- Pollution that cannot be prevented or recycled should be **treated** in an environmentally safe manner whenever feasible;
- **Disposal** or other **release** into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner

The Council of Environmental Quality provided additional guidance for incorporating pollution prevention into NEPA through a January 12, 1993 memorandum to Federal Department and Agency heads (Federal Register, January 29, 1993, pages 6478 - 6481). The EPA issued internal guidance to complete a Pollution Prevention analysis as an integral part of its Section 309 (Clean Air Act) review of NEPA documents as an attachment to a February 24, 1993 memorandum to Directors and Coordinators entitled Guidance on Incorporating EPA's Pollution Prevention Strategy into EPA's Environmental Review Process.

The EIS should address how it will avoid/reduce pollution at the source as the preferred course of action to lessen the need to recycle, treat and otherwise implement the objectives of Pollution Prevention.

The Montana State University-Extension Service in Bozeman has initiated development

of a Montana Pollution Prevention program to provide information to businesses and industries in Montana regarding waste reduction, pollution prevention, and recycling. We encourage you to contact the MSU-ES Pollution Prevention Program at (406) 994-3451 to seek new ideas and technology ( <http://www.mtp2.org> ).

